

Title (en)

Fiber-reinforced mouldable sheet and process for preparation thereof.

Title (de)

Faserverstärkte formbare Folie und Verfahren zur Herstellung.

Title (fr)

Feuille moulable renforcée de fibres et procédé pour sa fabrication.

Publication

EP 0040967 A2 19811202 (EN)

Application

EP 81302277 A 19810522

Priority

JP 6773980 A 19800523

Abstract (en)

A carbon fiber-reinforced mouldable sheet is provided. The mouldable sheet comprises a thermoplastics resin and at least two reinforcing agents differing in the length/diameter ratio, which are incorporated with the thermoplastics resin. One reinforcing agent (A) contained in the composite sheet is a carbon fiber having a length/diameter ratio of 200 to 30,000 and the other reinforcing agent (B) is a fibrous and/or powdery reinforcer having a length/diameter ratio of less than 50, and the contents of the reinforcers (A) and (B) in the mouldable sheet are 5 to 30% by volume and at least 5% by volume, respectively, the sum of the contents of the reinforcing agents (A) and (B) being in the range of from 20 to 50% by volume. The reinforcing effect of the carbon reinforcing fiber (A) is enhanced by the fibrous and/or powdery reinforcing agent (B) filled among spaces of reinforcing fibers (A). Therefore, mouldable articles made therefrom are excellent in mechanical properties, appearance and light-weight characteristic.

IPC 1-7

B29D 3/02

IPC 8 full level

B29C 70/02 (2006.01); **B29C 70/28** (2006.01); **B29C 70/46** (2006.01); **C08J 5/04** (2006.01); **C08K 7/00** (2006.01); **C08L 67/00** (2006.01); **C08L 77/00** (2006.01)

CPC (source: EP US)

B29C 70/025 (2013.01 - EP US); **B29C 70/04** (2013.01 - EP US); **B29C 70/28** (2013.01 - EP US); **B29C 70/467** (2013.01 - EP US); **C08J 5/042** (2013.01 - EP US); **B29K 2101/12** (2013.01 - EP US); **B29K 2105/12** (2013.01 - EP US); **B29K 2307/00** (2013.01 - EP US); **B29K 2707/04** (2013.01 - EP US); **Y10S 428/902** (2013.01 - EP US); **Y10T 428/254** (2015.01 - EP US); **Y10T 428/2918** (2015.01 - EP US); **Y10T 428/30** (2015.01 - EP US)

Cited by

WO2021089586A1; EP0185460A3; EP3819104A1; EP0461329A3; EP0219818A3

Designated contracting state (EPC)

DE FR GB IT NL SE

DOCDB simple family (publication)

EP 0040967 A2 19811202; EP 0040967 A3 19821201; JP S56164842 A 19811218; US 4356228 A 19821026

DOCDB simple family (application)

EP 81302277 A 19810522; JP 6773980 A 19800523; US 26461981 A 19810518